

#### DECLARATION Utility Application



As a below named inventor, I hereby declare that:

My residence, post office address and citizenship are as stated below next to my name.

I believe I am the original, first and sole inventor (if only one name is listed below) or an original, first and joint inventor (if plural names are listed below) of the subject matter which is claimed and for which a patent is sought on the invention entitled <u>ADVANCED ACTIVE ELECTRONIC DEVICES FOR MOLECULAR BIOLOGICAL ANALYSIS AND DIAGNOSTICS AND METHODS FOR MANUFACTURE OF SAME</u> the specification of which

(Check One)	is attached hereto OR was filed on February 20, 1998 as United States Application Serial No 09/026 618
	09/026,618

I hereby state that I have reviewed and understand the contents of the above-identified specification, including the claims, as amended by any amendment(s) referred to above.

I acknowledge the duty to disclose information which is material to the patentability of this application in accordance with Title 37, Code of Federal Regulations, § 1.56.

I hereby claim foreign priority benefits under Title 35, United States Code, § 119(a)-(d) or § 365(b) of any foreign application(s) for patent or inventor's certificate, or § 365(a) of any PCT international application which designated at least one country other than the United States of America, listed below and have also identified below, by checking the box, any foreign application for patent or inventor's certificate, or of any PCT international application having a filing date before that of the application on which priority is claimed.

Prior Foreign	Country	Date of Filing	Priority Claimed	
Application Number(s)	Country	Date of Filling	Yes No	
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I hereby claim the benefit under Title 35, United States Code, § 120 of any United States application(s), or § 365(c) of any PCT international application designating the United States of America, listed below and, insofar as the subject matter of each of the claims of this application is not disclosed in the prior United States or PCT international application in the manner provided by the first paragraph of Title 35, United States Code, § 112, I acknowledge the duty to disclose information which is material to patentability as defined in Title 37, Code of Federal Regulations § 1.56 which became available between the filing date of the prior application and the national or PCT international filing date of this application.

U.S. Parent Application Number	Parent Filing Date	Status-Patented, Pending or Abandoned	
CIP of 08/753,962	December 4, 1996	Pending	
which is a CIP of 08/534,454	September 27, 1995	Pending	
which is a CIP of 08/304,657	September 9, 1994	Patented as USP 5,632,957	

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Diagraphic Felephone calls to:
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		Los Angeles, CA 90071		(714) 751-0000 01 (213) 409-1000		
	FULL NAME OF INVENTOR	FIRST Name Donald	MIDDLE Initial E.		LAST Name Ackley	
201	RESIDENCE & CITIZENSHIP	City Cardiff	State or Foreign Country California		Country of Citizenship USA	
	POST OFFICE ADDRESS	2033 Cambridge Ave.	City Cardiff		State or Country CA	Zip Code 92007
	FULL NAME OF INVENTOR	FIRST Name Paul	MIDDLE Initial D.		LAST Name Swanson	
202	RESIDENCE & CITIZENSHIP	City Santee	State or Foreig California	n Country	Country of Citizens USA	ship
	POST OFFICE ADDRESS	10854 Susie Lane	City Santee		State or Country Califorina	Zip Code 92071
	FULL NAME OF INVENTOR	FIRST Name - Scott	MIDDLE Initial O.		LAST Name Graham	
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	POST OFFICE ADDRESS	12592 Caminito Mira del Mar	City San Diego		State or Country California	Zip Code 92130
	FULL NAME OF INVENTOR	FIRST Name Elizabeth	MIDDLE Initial		LAST Name Mather	
204	RESIDENCE & CITIZENSHIP	City San Diego	State or Foreig California	n Country	Country of Citizens USA	ship
	POST OFFICE ADDRESS	412 Maler Road	City San Diego		State or Country California	Zip Code 92129
	FULL NAME OF INVENTOR	FIRST Name Timothy	MIDDLE Initial		LAST Name LeClair	
205	RESIDENCE & CITIZENSHIP	City San Diego	State or Foreig California	n Country	Country of Citizens USA	·
	POST OFFICE ADDRESS	4944 Cass Street, #511	City San Diego		State or Country California	Zip Code 92109
	FULL NAME OF INVENTOR	FIRST Name William	MIDDLE Initial F.		LAST Name Butler	
206	RESIDENCE & CITIZENSHIP	City La Jolla	State or Foreig Califorina	e or Foreign Country Country of Citizenship USA		
	POST OFFICE ADDRESS	8519 Sugarman Drive	City La Jolla		State or Country Califorina	Zip Code 92037

I further declare that all-statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements are made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under section 1001 of Title 18 of United States Code, and that such willful false statements may jeopardize the validity of the application or any patent issuing thereon.

Signature of Inventor	201	Signature of Inventor Matter	204
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Date 7/	10/98	Date 9/10/98	
Signature of Inventor	202	Signature of Inventor	205
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Signature of Inventor	203	Signature of Inventor	206
	lean.	William 7 Doller	
Date	11198	Date 9/10/98/	

(Signatures should conform to names as presented at 201 et seq. above.)



### **POWER OF ATTORNEY**



Nanogen, Inc., assignee(s) of the application for United States Letters Patent for an improvement in ADVANCED ACTIVE ELECTRONIC DEVICES FOR MOLECULAR BIOLOGICAL ANALYSIS AND DIAGNOSTICS AND METHODS FOR MANUFACTURE OF SAME by Donald E. Ackley; Paul D. Swason; Scott O. Graham; Elizabeth L. Mather; Timothy L. LeClair; and William F. Butler the specification of which was

	executed on even date herewith, or		
X	filed February 20, 1998 having Serial No. 09/026.618.		

As a named inventor, I hereby appoint as my attorneys, with full power of substitution and revocation, to prosecute this application and transact all business in the Patent and Trademark Office connected therewith: Roland N. Smoot, Reg. No. 18,718; Conrad R. Solum, Jr., Reg. No. 20,467; James W. Geriak, Reg. No. 20,233; Robert M. Taylor, Jr., Reg. No. 19,848; Samuel B. Stone, Reg. No. 19,297; Douglas E. Olson, Reg. No. 22,798; Robert E. Lyon, Reg. No. 24,171; Robert C. Weiss, Reg. No. 24,939; Richard E. Lyon, Jr., Reg. No. 26,300; John D. McConaghy, Reg. No. 26,773; William C. Steffin, Reg. No. 26,811; Coe A. Bloomberg, Reg. No. 26,605; J. Donald McCarthy, Reg. No. 25,119; John M. Benassi, Reg. No. 27,483; James H. Shalek, Reg. No. 29,749; Allan W. Jansen, Reg. No. 29,395; Robert W. Dickerson, Reg. No. 29,914; Roy L. Anderson, Reg. No. 30,240; David B. Murphy, Reg. No. 31,125; James C. Brooks, Reg. No. 29,898; Jeffrey M. Olson, Reg. No. 30,790; Steven D. Hemminger, Reg. No. 30,755; Jerrold B. Reilly, Reg. No. 32,293; Paul H. Meier, Reg. No. 32,274; John A. Rafter, Jr., Reg. No. 31,653; Kenneth H. Ohriner, Reg. No. 31,646; Mary S. Consalvi, Reg. No. 32,212; Lois M. Kwasigroch, Reg. No. 35,579; Lawrence R. LaPorte, Reg. No. 38,948; Robert C. Laurenson, Reg. No. 34,206; Carol A. Schneider, Reg. No. 34,923; Hope E. Melville. Reg. No. 34,874; Michael J. Wise, Reg. No. 34,047; Richard J. Warburg, Reg. No. 32,327; Kurt T. Mulville, Reg. No. 37,194; Theodore S. Maceiko, Reg. No. 35,593; Bruce G. Chapman, Reg. No. 33,846; and F.T. Alexandra Mahaney, Reg. No. 37,668.

1 =	633 W Fifth St., Suite 4700	Direct Telephone calls to: (213) 489-1600 or (714) 751-6606
	Los Angeles, CA 90071-2066	

I, the undersigned, declare that I am the (an) assignee of the above-identified application or, if the assignee is a corporation, partnership or other association, I am authorized to make this appointment on behalf of the assignee and I further declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further, that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 19 of the United States Code, and that such willful false statements may jeopardize the validity of the application or any patent issuing thereon.

Full Name of Assignee: Nanogen, Inc.	
Post Office Address 10398 Pacific Center Court, San Diego, CA 92	121
Signature of Declarant or Assignee:	Date:
Laur & Genhard	9/17/58



UNITED STATES DEPARTMENT OF COMMERC Patent and Trad mark Office

ASSISTANT SECRETARY AND COMMISSIONER OF PATENTS AND TRADEMARKS Washington, D.C. 20231

FEBRUARY 01, 1999

**PTAS** 

LYON & LYON LLP
DAVID B. MURPHY
633 WEST FIFTH STREET, SUITE 4700
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# UNITED STATES PATENT AND TRADEMARK OFFICE NOTICE OF RECORDATION OF ASSIGNMENT DOCUMENT

THE ENCLOSED DOCUMENT HAS BEEN RECORDED BY THE ASSIGNMENT DIVISION OF THE U.S. PATENT AND TRADEMARK OFFICE. A COMPLETE MICROFILM COPY IS AVAILABLE AT THE ASSIGNMENT SEARCH ROOM ON THE REEL AND FRAME NUMBER REFERENCED BELOW.

PLEASE REVIEW ALL INFORMATION CONTAINED ON THIS NOTICE. THE INFORMATION CONTAINED ON THIS RECORDATION NOTICE REFLECTS THE DATA PRESENT IN THE PATENT AND TRADEMARK ASSIGNMENT SYSTEM. IF YOU SHOULD FIND ANY ERRORS OR HAVE QUESTIONS CONCERNING THIS NOTICE, YOU MAY CONTACT THE EMPLOYEE WHOSE NAME APPEARS ON THIS NOTICE AT 703-308-9723. PLEASE SEND REQUEST FOR CORRECTION TO: U.S. PATENT AND TRADEMARK OFFICE, ASSIGNMENT DIVISION, BOX ASSIGNMENTS, CG-4, 1213 JEFFERSON DAVIS HWY, SUITE 320, WASHINGTON, D.C. 20231.

RECORDATION DATE: 09/29/1998

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ASSIGNOR:

ACKLEY, DONALD E.

DOC DATE: 09/17/1998

ASSIGNOR:

SWANSON, PAUL D.

DOC DATE: 09/17/1998

ASSIGNOR:

GRAHAM, SCOTT O.

DOC DATE: 09/17/1998

ASSIGNOR:

MATHER, ELIZABETH L.

DOC DATE: 09/17/1998

ASSIGNOR:

LECLAIR, TIMOTHY L.

DOC DATE: 09/17/1998

ASSIGNOR:

BUTLER, WILLIAM E.

DOC DATE: 09/17/1998



.9494/0719 PAGE 2

ASSIGNEE:

NANOGEN, INC. 10398 PACIFIC CENTER COURT SAN DIEGO, CALIFORNIA 92121

SERIAL NUMBER: 09026618

PATENT NUMBER:

FILING DATE: 02/20/1998

ISSUE DATE:

JOANN STEWART, EXAMINER ASSIGNMENT DIVISION OFFICE OF PUBLIC RECORDS

10-13-199^ **U.S. DEPARTMENT OF COMMERCE** RECORDATION Patent and Trademark Office 1-31-92 PATI 100848222 Docket No. 231/244 To the Honorable Commissioner of Patents and Trademarks. Please record the attached original documents or copy thereof. Name and address of receiving party: Name of conveying party(ies): Donald E. Ackley; Paul D. Swanson; Scott O. Graham; Name: Nanogen, Inc. Elizabeth L. Mather; Timothy L. LeClair; William Butler Additional name(s) of conveying party(ies) attached? Internal Address: ☐ Yes 🖾 No SEP 2 9 1998 Nature of conveyance: \_\_\_\_State: \_\_\_\_ Zip: ☐ Merger ☐ Security Agreement Change 8 Street Address: 10398 Pacific Center Court Other City: San Diego \_\_\_\_State: <u>CA</u> Zip: <u>92121</u> Execution Date: September 17, 1998 Application number(s) or patent number(s): If this document is being filed together with a new application, the execution date of the application is: September 17, 1998 Patent Application No(s). 09/026,618 B. Patent No(s) .: Additional numbers attached? Yes No 6. Total number of applications and patents involved: 1 Name and address of party to whom correspondence concerning document should be mailed: Name: David B. Murphy Total fee (37 CFR 3.41): \$40.00 Internal Address: LYON & LYON LLP 633 West Fifth Street, Suite 4700 ☐ Charge this Deposit Account if any additional fee is Los Angeles, CA 90071-2066 required Deposit Account Number: 12-2475 DO NOT USE THIS SPACE Statement and signature, 1518 To the best of my knowledge and belief, the foregoing information is true and correct and any attached copy is a true copy of the original document. Date: \_\_\_\_\_ Supt 75 , 1998 David B. Murphy, Reg No. 31,125 Total number of pages including cover sheet: OMB No. 0651-0011 (exp. 4/94) Do not detach this portion Mail documents to be recorded with required cover sheet information to: **Commissioner of Patents and Trademarks Box Assignments** 

OC-11866.1

## CERTIFICATE OF MAILING (37 C.F.R. §1.8a)

Washington, D.C. 20231

Public burden reporting for this sample cover sheet is estimated to average about 30 minutes per document to be recorded, including time for reviewing the document and gathering the data needed, and completing and reviewing the sample cover sheet. Send comments regarding this burden estimate to the U.S. Patent and Trademark Office, Office of Information Systems, PK2-1000C, Washington, D.C. 20231, and to the Office

I hereby certify that this paper (along with any referred to as being attached or enclosed) is being deposited with the United States Postal Service on the date shown below with sufficient postage as First Class Mail in an envelope addressed to the Assistant Commissioner for Patents, Washington, D.C. 20231.

September 25, 1998
Date of Deposit

Denise N. Doss

Warne of Person Mailing Paper

Signature of Person Mailing Paper

of Management and Budget, Paperwork Reduction Project, (0651-0011), Washington, D.C. 20503

### **ASSIGNMENT**

WHEREAS, WE, DONALD E. ACKLEY, a citizen of the United States, residing at 2033 Cambridge Avenue, Cardiff, California 92007, PAUL D. SWANSON, a citizen of the United States, residing at 10854 Susie Lane, Santee, California 92071, SCOTT O. GRAHAM, a citizen of the United States, residing at 12592 Caminito Mira del Mar, San Diego, California 92130, ELIZABETH L. MATHER, a citizen of the United States, residing at 412 Maler Road, San Diego, California 92129; TIMOTHY L. LECLAIR, a citizen of the United States, residing at 4944 Cass Street, #511, San Diego, California 92109; and WILLIAM F. BUTLER, a citizen of the United States, residing at 8519 Sugarman Drive, La Jolla, California 92037 (hereinafter referred to as "ASSIGNORS"), have invented and own a certain invention entitled ADVANCED ACTIVE ELECTRONIC DEVICES FOR MOLECULAR BIOLOGICAL ANALYSIS AND DIAGNOSTICS AND METHODS FOR MANUFACTURE OF SAME for which application for Letters Patent of the United States of America has been filed on February 20, 1998, assigned Serial No. 09/026.618; and

WHEREAS, NANOGEN, INC., a corporation organized and existing under and by virtue of the laws of the State of California and having its principal place of business at 10398 Pacific Center Court, San Diego, California 92121 (hereinafter referred to as "ASSIGNEE"), is desirous of acquiring the exclusive right, title and interest in, to and under said invention and in, to and under any Patent or similar legal protection to be obtained therefor in the United States of America, its territorial possessions and in any and all countries foreign thereto.

NOW, THEREFORE, for good and valuable consideration, the receipt of which is hereby acknowledged, ASSIGNORS hereby sell, assign, transfer and set over unto the said ASSIGNEE, its successors and assigns, the full and exclusive right, title and interest to said invention and to all

Letters Patent or application or similar legal protection, not only in the United States and its territorial possessions, but in all countries foreign thereto to be obtained for said invention by said application, and to any continuation, division, renewal, substitute or reissue thereof or any legal equivalent thereof in the United States or a foreign country for the full term or terms for which the same may be granted, including all priority rights under the International Convention; and ASSIGNORS hereby authorize and request the Commissioner of Patents and Trademarks to issue said Letters Patent or any legal equivalent thereof to said ASSIGNEE, its successors and assigns, in accordance with this Assignment.

ASSIGNORS hereby covenant that no assignment, sale, agreement or encumbrance has been or will be made or entered into which would conflict with this Agreement;

ASSIGNORS further covenant that ASSIGNEE will, upon its request, be provided promptly with all pertinent facts and documents relating to said application, said invention and said Letters Patent and legal equivalents as may be known and accessible to ASSIGNORS and will testify as to the same in any interference or litigation related thereto and will promptly execute and deliver to ASSIGNEE or its legal representative any and all papers, instruments or affidavits required to apply for, obtain, maintain, issue and enforce said application, said invention and said Letters Patent and said equivalents in the United States or in any foreign country, which may be necessary or desirable to carry out the purposes thereof.

WITNESS my hand at	ςσ, California, this
WITNESS my hand at	_, 19 <u><b>9</b></u> &
	DONALD E. ACKLEY, Ph.D.
STATE OF CALIFORNIA )	
COUNTY OF SAN DIEGO	
On 9/10/98 before me, DEAN DONALD E. ACLLEY	IN L. ZELLMANN, personally appeared
personally known to me	
- OR -	
proved to me on the basis of satisfactor is/are subscribed to the within instrument and ack same in his/her/their authorized capacity(ies), and the person(s), or the entity upon behalf of which the	hat by his/her/their signature(s) on the instrument
WITNESS my hand and official seal.	Notary Public In and for
DEANN L. ZELLMANN Commission = 1169850 Notary Public - California \$ San Di- on County My Domin Extres Lan 16, 2002	said County and State

WITNESS my hand at	San	01090	, California, this
l day of	Septembe	, 19 <u>98</u> .	
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		PAUL D. S	WANSON, Ph.D.
STATE OF CALIFORNIA	) ) ss		•
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WITNESS my hand and o	fficial seal.	Notary Publ	L'Ellman
DEANN L. ZELLMANN Commission = 1169850 NOTOR Public - Colifornia		said County	and State

WITNESS my hand at	Say Viego, California, this
17th day of September	Scott O. Szakan SCOTT O. GRAHAM, Ph.D.
STATE OF CALIFORNIA ) ) ss COUNTY OF SAN DIEGE.	
On 9/17/98 before me, DEANI	L. ZELMANN, personally appeared
personally known to me	
- OR -	
is/are subscribed to the within instrument and a	cknowledged to me that he/she/they executed the that by his/her/their signature(s) on the instrument ne person(s) acted, executed the instrument.
WITNESS my hand and official seal.	Heary Zillmann
CEANN L. ZELLMANN  Commission = 1169850  Norary Public - California = San Diego County  My Comm. Expires Jan 16 2002	Notary Public/in and for said County and State

Patent 231/244 WITNESS my hand at California, this STATE OF CALIFORNIA ) ss COUNTY OF SAN DIEG-O before me, beanne. Zeumann, personally appeared EULAGETH L. MATHER personally known to me - OR proved to me on the basis of satisfactory evidence to be the person(s) whose name(s) is/are subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their authorized capacity(ies), and that by his/her/their signature(s) on the instrument the person(s), or the entity upon behalf of which the person(s) acted, executed the instrument. WITNESS my hand and official seal. said County and State

	[90,	California, this
day of SEPTEMBER	7 _, 19 <i>98</i> .	
	T.L. Le Clai	
	TIMOTHY L. LECLAIR	<del></del>
STATE OF CALIFORNIA )		
COUNTY OF SAN DIEGO		
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DEANN LIZELLMANN Commission = 1169850 Notary Public - California = San Diedo County My Commission - 1911 6 2002	Notary Public in and for said County and State	

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WITNESS my hand at <u>San Died</u> 10 th day of <u>September</u>	_, 19 <u><b>96</b></u> .
	Milliam 7 Sutles WILLIAM F. BUTLER, Ph.D.
STATE OF CALIFORNIA ) ) ss COUNTY OF SAN DIEGO ).	
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On 9/10/98 before me, DEAN WILLIAM F. BUTLER	IN L ZEWMANN, personally appeared
personally known to me	
- OR -	
proved to me on the basis of satisfactory evidence to be the person(s) whose name(s) is/are subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their authorized capacity(ies), and that by his/her/their signature(s) on the instrument the person(s), or the entity upon behalf of which the person(s) acted, executed the instrument.	
WITNESS my hand and official seal.	Deal was 2 ellman.
DEANN L. ZELLMANN  Commission = 1169880  Natary Public - California = \$\frac{\fin}{\frac{\fir}{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\fir}{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\fir}{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\fin}{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\	Notary Public in and for said County and State